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INSECTS

INJURIOUS TO THE FARMER & GARDENER,

A SERIES OF ESSAYS, BY WILLIS GAYLORD.

(Continued.)

SECTION III. Insects injurious to Orchards and Fruit Trees, generally.

There are few parts of a farm that contribute more to the general aggregate of profits, certainly none that add more to the comfort of the husbandman, than the one devoted to the culture of fruit; and as all trees are more or less liable to attacks from insect enemies, the fruit grower has need of constant vigilance to preserve his trees and fruits from these assailants. In noticing some of the most injurious of these, the first place will belong to those infesting apple orchards.

One of the most common of the insects that attack the apple tree is the caterpillar, *Clistiocampa Americana* of Harris, Tent caterpillar or Lackey caterpillar of foreign writers, so called from the web it weaves for protection while not feeding. This caterpillar, well known as one of the worst enemies of the orchard, is unfortunately so common as to need no description. Within a few years they seem to have multiplied to an alarming extent; having the last summer entirely stripped of their foliage, and of course destroyed the fruit, of thousands of orchards; and there is every probability that their numbers will multiply so long as they are permitted, as they were in many places last year, to proceed in their transformations and work of destruction unmolested. Scarcely anything is easier than to destroy them when taken at the proper time, and before they wander to any considerable distance from their webs or nests; and a simultaneous effort of the farmers of any neighborhood or town for their demolition, would effectually abate the nuisance perhaps for years. Lye, whitewash, poles with brushes or cobs attached, whale-oil, soap suds, burn off the webs with gunpowder, and we know not how many other modes of destroying them, have been recommended, but the method most effectual we have never seen noticed. It is this: when the worms are all hatched from their eggs, and the webs become so conspicuous that they cannot well be overlooked, with a suitable ladder and a pair of stout mittens, if you are fastidious about using your hands, commence the attack in earnest. Select the time when the worms are all in their web, and then at a single grasp, that and every occupant may be at once destroyed. We last year knew a farmer whose orchard was loaded with the young caterpillars' webs in the spring, who freed it wholly from them in this way, and its green foliage and heavy fruitage formed a striking contrast to those orchards whose owners made no efforts to save them. When the caterpillar is ready for its transformation, it passes a few weeks in the pupa state, and then comes forth a moth or miller, which deposits its eggs in a comb of a thimble-like form, around and near the extremity of some branches. The warmth of the next spring that develops the young leaves, hatches these eggs; and the young caterpillars, selecting a favorable spot on the branch, proceed to spin their web, feeding at the same time on the opening leaves and blossoms.

Next to the caterpillar in destructiveness, and where it is fully established, perhaps still more injurious to the orchard, is what is called the canker worm, the progeny of the *Phalena vernata* of American entomologists, the *Geometra brumata* of European ones. In this country the ravages of the canker worm are limited mostly to the Atlantic States, and chiefly to New-England, while those

of the caterpillar extend wherever the apple tree is found. The canker worm belongs to the kind known by the different names of inch worm, looper caterpillar, surveyor, &c., from their mode of progress. There is a wide difference between the male and female of the parent moths; the former having wings, while the latter is only provided with their rudiments. The general time for the deposition of their eggs is in March, but in mild winters they have been observed in every month busy in this work; in fact, in favorable seasons, eggs are deposited in every month from October till April. The insects, when they escape from the earth, make for the nearest fruit trees, the male by flying and the female by crawling up the body. In this progress the pairing of the moths usually takes place, and the female ascending to the top of the tree, glues her eggs upon the fruit buds and smaller branches, singly or in clusters. Rain cannot wash them off, nor cold destroy their vitality. The warmth that opens the buds brings the canker worm from the egg, at first almost transparent and but little larger than a horse hair; they feed on the delicate young leaves, but soon take the blossoms and the young buds, their appetite appearing to increase with their size. When the fruit begins to form, it becomes their favorite food; and when this is devoured the foliage is again attacked; and where they are numerous, the small webs they make to protect themselves, added to the destruction of the foliage, gives the tree the appearance of having been scored. They leave off eating when about four weeks old, and following the directions of instinct, begin to quit the trees. They generally let themselves down by a thread spun from their mouths, while some creep down the trunks and others fall at once to the earth. When they reach the earth, they penetrate it from two to six inches, where they are transformed into chrysalids. In this state they usually remain till spring, but any considerable degree of warmth, will, as before stated, bring out the perfect insect at any previous time.

Most fortunately, as the females of this scourge of the orchard are without wings, they cannot spread rapidly, or they might wholly destroy our fruit trees. Naturally confined to a limited space, they spread mostly by accidental causes; but when once established, they are difficult to subdue and terribly destructive. To put a total stop to the ravages of the canker worm, it is only necessary to prevent the females from crawling up the tree; but this, so easy in theory, in practice is found to be very difficult. Almost everything sticky, greasy, offensive, or poisonous, has been tried, and with very little effect. Tar spread on the trunks of the tree or on paper, and secured about it, will check them for a time, but it will soon become dry and is then passed at once; or where the insects are numerous the tar will soon be so covered as to permit the ascendent column to pass safely. Threads or papers smeared with mercurial ointment have been found ineffectual: in short ordinary obstacles are overcome readily.

In Kollar's work on insects, the following contrivance is pronounced the best y discovered: Four boards, about a foot long, and rather wider than the diameter of the tree, are nailed together in the form of an open box; but the fourth side is not stoned until the box is placed around the tree. The bottom must be placed an inch or two deep in the earth, which must be trod down hard about it, to prevent the mites getting under it. On the top, a thin piece of wood three or four inches wide, is nailed, to prevent the sun's heat having effect on the tar or cart grease which is the smeared on the outside of the box, on the under side, and in the angle formed by this coping. While the box is new, smearing must be

repeated two or three days in succession; afterwards smearing is only necessary two or three times during autumn, or if the weather is cold, it may be dispensed with until spring. On the first appearance of warm weather, the box must be again smeared, which, with occasional repetitions, will prevent their ascent. The principal recommendation of this method is, that, while it is effectual, it prevents all that damage which is apt to arise from the application of tar, grease, or oil of any kind, directly to the bark. In this country, a trough of lead containing oil is placed under this coping, and is found very effectual. A patent has been taken out by Mr. Dennis, of Portsmouth, R. I., for a circular leaden trough containing oil, to be nailed around the tree. It is found to be effectual in cutting off the ascent of the moth, but the nails and the oil has been found injurious to the trees, and it has been necessary to take great pains to guard against such a result. Wedges of wood are used to support the troughs instead of nails, and instead of the stuffing of cotton or tow that is required between the trough and the tree to make it tight, and which was found to absorb and retain the oil, Dr. Harris recommends that sea weed and fine hay be used. For a description and figures of the trough and its mode of application, see the "Albany Cultivator," vol. ix. page 165. Some hope are entertained, that showering the trees infested by the worm with a mixture of water & whale-oil soap, as recommended by Mr. Haggerston, will destroy the canker worm as well as other insects. Sudden jars will cause many to spin down, when they can be destroyed. If hogs are allowed to run under the trees, and the ground is rooted over repeatedly during the time the insect is in the earth, from July till October, multitudes will be killed. Fortunately for the farmer or orchardist, the canker worm has many enemies. They are devoured by birds; a large ground beetle feeds upon them voraciously; an ichneumon fly deposits its eggs in the worm, from which is hatched a maggot that destroys it; and even the eggs of the canker moth are pierced by a small fly, a *Platygaster*, in which an egg is left which is hatched into a minute maggot, feeding on the contents of the moth's egg until it is full grown. These and various other means are adopted in the economy of nature to check the increase of these noxious insects. For more full accounts of this pest of the orchard, reference may be made to Kollar, Harris, and the volumes of the New E. Farmer.

Another insect that does great damage to nurseries of young apple trees, and is frequently found on the bodies and branches of other trees, is a species of bark-louse, called by Geoffroy the *Coccus arborum linearis*. The two former apple-tree insects described, belong to the Lepidoptera; this to the Hemiptera class. They are shaped not unlike muscle shells, about one-tenth of an inch long, and adhere firmly to the bark by means of their sucker, which is at the upper or pointed part. On lifting one of these shells in the spring, a great number of eggs may be found under it, of a white color, resembling globules of starch. We have frequently examined them with the microscope, and very often found eggs unhatched mingled with the young in their cover. When vivified by the sun, the young soon creep from under the dead body of their parent, which has formed their protection, and selecting a place on the bark for themselves, penetrate it with their sucker, and are fixed for life. We have seen young trees so completely covered by this coccus, that scarcely a spot on the bark could be found exempt from them; and on paring off the bark, thousands of punctures, shown by the discoloration of the bark and wood, revealed the places whence the juices of the tree were extracted. The injury done to young or old trees

by this insect is great, it seriously affecting both the growth and the fruit. The only effectual remedy we have ever tried for this insect is common whitewash; but Dr. Harris recommends a wash made of two parts soft soap, eight parts water, and lime enough to bring it to the consistency of good whitewash. We have not tried this, but presume it would destroy the coccus, as well as promote the growth of the tree.

There is another insect called the cottony aphis, *Aphis lanata*, sometimes found on apple trees, but in this country it is much oftener found on the black alder in swamps, and on other trees, than on the apple tree. This insect fixing itself by its sucker at the proper time, throws out, from under its body masses of a white cotton-like looking material, filled with minute young, and this floating off on the wind, is attached to whatever branches it may strike; and if the wood or position is favorable, a new colony is speedily commenced. Whitewashing the trees as this insect appears is certain to destroy them, as will rubbing them with a stiff brush, or any wash that prevents the escape of the young. In Great Britain this aphis is called the "American blight," under the mistaken idea that it was imported from this country; but this has been shown to be an error, as several species of the *lanata*, including the apple one, have long been known to foreign entomologists.

In New-England and the Middle States, the apple tree is frequently attacked by a grub, commonly called the borer. This is the larva of a beetle called by Say, the *Saperda bivittata*, and which is transformed into the perfect insect in June. In the day time it keeps secreted among the leaves of the trees it infests, and during the night is busy in search of companions or food. The eggs are deposited upon the bark of the tree, near the root, in the course of June or July, and from them is produced a round white grub, with no appearance of legs. Mr. Buckminster of the "Massachusetts Plowman," who has paid much attention to this insect and its habits, has arrived at the following conclusions: That the beetle makes its appearance in June; that about the first of July, she makes provision for her offspring; that she lays her eggs, ten in number, on the body of the tree near the ground; that the eggs are hatched in about eight days; that the maggot only burrows in the bark the first season; that during the second season it penetrates the wood, boring upwards; that in the third year it is eight or ten inches higher than its place of entrance, and that in June of the third year, it comes out a perfect insect. It must be admitted, however, that there are some doubts about the precise time taken in its transformation, but these perhaps may be solved by future observation. The same borer also attacks the quince, thorn, mountain ash, and some of the woodland shrubs, which shows that it is widely disseminated. The mischief it occasions, too, is much aggravated by the carelessness of many farmers, who take no pains to preserve their trees or destroy these depredators. The grub is easily found by the hole made in the bark and the dust thrown from it. If only in the bark, it may be picked out with a sharp pointed knife; or in the wood, may be cut out with a sharp narrow chisel. Where the burrow is open, a flexible barbed wire will either extract or kill them. Dr. Harris suggests that if a bit of camphor was introduced into the hole, and plugged in with soft wood, it might destroy the worm. We should have more confidence in some fluid known to be fatal to the grub, and thrown into his burrow from a fine pointed syringe. We doubt whether the grub could stand for any time immersion in corrosive sublimate or the acids. Mr. Buckminster states, that "scalding water, or cold lye, strong enough to bear an egg, will kill, if it comes in contact with them." Injecting cold lye would be an easy experiment. Mr. B. and those who have adopted his plan of an annual washing of the tree in strong lye, about the time of the hatching of the eggs, have succeeded well in clearing their trees of the borer, and as the process is rational in itself, it should be adopted wherever the borer shows itself. Whitewashing, and heaping leached ashes around the root of the tree, have also proved useful; and if any neighborhood of farmers would adopt and carry out a thorough system of freeing their trees, for only two or three years, they would find very little trouble necessary afterwards to enjoy such an exemption as would secure their trees from damage.

The insects we have now described, have been depredators on the foliage or the wood only, the canker worm excepted; but there is another most mischievous enemy to the apple, that attacks the fruit only, and where it pre-

vails is known as the apple worm. It is a true caterpillar, not a grub, like the plum and cherry weevils; and is the larva of the moth called *Carpocapsa pomonella*, the codling or fruit moth. A good description of this worm, with figures, may be found at page 230 of Kollar's work on insects. In some years this apple worm has been so common in New-England, that a very large part of the apples were rendered worthless by it. It is very rare in the interior of the States, but we have occasionally met with it, and it is to be apprehended it will become still more common. The moth appears in the latter part of June, or beginning of July, and without puncturing the fruit, deposit their eggs in the hollow at the blossom end of the fruit, where the skin is most tender, and the worm the least liable to disturbance. As soon as the worm is hatched, which is in a few days, it commences eating into the young fruit, making their way from the eye towards the core, and marking its presence by the powder thrown out of the opening. The moth seems to prefer early to late apples, and the thin-skinned summer fruits suffer the most extensively. In the course of two or three weeks, the worm has burrowed to the core, and attained its full size. To get rid of the matter made in its excavations, it cuts a round hole through the side of the apple, and thus is enabled to keep its burrow clear. Sometimes the worm leaves the apple before it falls, but usually the injury it has received causes it to fall prematurely, when the worm quits it, and spins a cocoon, in which it changes to a chrysalis, and in a few days more, the perfect insect appears, to renew the work of destruction. These are only the earliest ones; the later ones do not perfect their transformations till the ensuing spring. The surest mode of destroying the apple worm, is to allow swine to run in the orchard, to gather all the fruit that first falls; or where this cannot be done, to pick them up by hand and feed them to some animal. The plum weevil and the apple worm are distinct insects. The plum weevil has been found in the apple, but the apple worm never in the plum.

For many years the pear trees of this country were subject to a disease which, commencing in the summer with the withering and drying up of the leaves and branches on some parts of the tree, continued to spread until eventually the whole tree perished. Multitudes of fine trees thus died annually, and some feared the pear must become extinct. To the Hon. John Lowell of Massachusetts, belongs the honor of discovering the cause of this destruction. He found that a small beetle deposited an egg near the root of the bud, the worm proceeding from which followed the course of the eye of the bud towards the centre of the branch, around the pith of which it passes, forming a kind of burrow, and cutting off the circulation of the sap to a great extent. As this is done during the heat of summer, when the sap is most needed, the death of the branch is the result. Prof. Peck examined the character and habits of this insect, to which he gave the name of *Scolytus pyri*. His account of the insect may be found in the fourth volume of the "Massachusetts Agricultural Repository." The beetle is of dark brown color, and about one-tenth of an inch in length. The remedy suggested by Prof. Peck and Mr. Lowell, was to cut off the branch as soon as symptoms of blight were discovered, and consign it to the flames at once. It was found necessary to cut off the branch quite as low as the disease showed itself, as the insect is found at the lowest part of the withered branch; and here this system of excision is carefully carried into effect, by frequent examinations, and the branches immediately cut off and burned, little or no damage is now caused by the insect. If pear trees are now lost by this insect by the fire blight, as it is frequently called, it may justly be attributed either to the ignorance or the negligence of the owner.

The pear has another enemy i the pear weevil, *Curculio (anthonomous) pyri* of Klar, which lays its eggs on the buds, causing them to turn brown, and many of them to fall off about the time of blossoming. This curculio is not common in this country, but we have seen results on the pear tree, which are to be referred to this or a similar insect.

The plum tree, both in its fruit and its wood, seems peculiarly liable to the attack of insects. The principal of these is the *Rhyuchænus nuphar*, or plum weevil. Plums, cherries, peaches, and some fruit generally, are attacked by this beetle, which is of dark brown, about one-fifth of an inch in length, with long curved snout. They puncture the fruit with their snouts in a semicircular form, and in each puncture deposit eggs. This hatches, be-

comes a white grub, and feeding on the pulp and juices of the green fruit, causes it to become gummy or fall prematurely. The grub, on arriving at maturity, leaves the fruit for the earth, in which it passes into the chrysalis state, and in about three weeks appears as a perfect insect. No matter what may be the fruit attacked, the course pursued by the insect, and the result, is nearly the same. The plum more frequently falls, however, than other fruits, and hence the insect attracts more notice in that fruit than in others.

Did the beetle confine its ravages to the fruit of these trees alone, the damage would be small, compared with what it actually is; since not only the fruit, but the tree itself is frequently killed by them. Every one conversant with fruit, has observed the black unsightly masses that collect on branches of the plum tree, some varieties of the cherry tree, and, in some cases, in swellings or gummy protuberances on the peach tree. These are occasioned by the same insect as that which destroys the fruit, and the grub may usually be found in them, perhaps always, if the masses are examined at the proper time. When the beetle attacks fruit, which is usually soon after the fruit sets on the trees, its presence is easily detected by the marks on the surface, particularly the smooth skinned ones. If a sheet, or sheets, are at this time spread under the tree, and a sudden violent jar given the tree, the beetles will fall, and, being received by the sheet, may be easily gathered and destroyed. If this operation is performed for a few days, every morning and evening, the fruit will be secured. If hogs, or even geese, are allowed to run among the fruit trees, they will eat the fallen fruit, and thus destroy the most of the worms. We had, for many years, some cherry trees standing in a lot where hogs were generally kept through the spring and summer months. The fruit on these trees rarely suffered in the least, while others, not so situated, were frequently almost worthless from the grub. Paving the ground under the plum and cherry is found to operate as a preventive, it preventing the worm from readily burying itself in the ground, and while exposed it is frequently picked up by hens, birds, &c. Kollar remarks, that the plum weevils of Europe, "in default of plums, make use of the soft spring-shoots of the plum and apricot trees;" and this seems probable is the reason why the branches are so fatally attacked here. So destructive has the black gum, or blight, become, that many farmers have abandoned attempting to grow the plum or the cherries most liable to be attacked; but there seems no good reason for this course. If the trees are carefully examined during the summer months, as often as once a week, and every branch where a swelling of the bark, or the appearance of the black excrescence is discovered, is at once cut out and burned, the trees will soon be free from the insect, and, this course pursued, will remain so. The Messrs. Thomas, of Scipio and Macedon, in Western New-York, who have had the most ample experience in the culture and management of fruit trees, find no difficulty in preserving their orchards and nurseries from these pests; and the same may be said of all who are willing to unite the intelligence and exertion requisite to success. We have found the wild or Indian plum of our forests, the *Prunus Americanus*, even when growing side by side with the diseased trees, perfectly exempt; and it is possible that it might make good stocks for grafting or inoculating the cultivated varieties upon, as preventive of the grub. The fruit of this wild plum is exposed, however, to another enemy, a species of cynips or gall insect, which causes the young fruit to expand into large, irregular, puffy masses, not altogether unlike the false honey-suckle, or swamp apple, so common in New-England; and it is possible this insect would continue to operate on the inoculated or grafted fruit.

(To be Continued.)

AN APPLE WITHOUT SEED OR CORE.—S. W. Jewett, Esq., in a letter to the Boston Cultivator, says he has this year received some "slips" (scions we suppose) of a kind of apple that has neither "core nor seeds." The fruit, he says, is only propagated near Ticonderoga, New York. The origin of the variety is given in the following words:—"The top of a young tree was bent over and covered with earth, which took root; the tree was cut asunder, which stopped all connexion with the natural roots of the tree, and by the sprouts which sprung from the top portion of the body a regular top was formed, which produces this fine fruit, said to be a beautiful red, good size, and very pleasant table apple to be used in the fall."

RYE.—This valuable grain is generally cultivated at small expense, and produces tolerable crops on light sandy soils without manure. There are some sections of the country where the land is cropped from year to year, without adding any thing to fertilize the soil: those who thus draw upon their land, should be admonished by the beggarly amount of their crops thus produced, that it is time to pursue a different course. There are those who give their land a little rest and pasture it a few intermediate years; but as there is no grass-seed sown, and what little stock that can be kept upon it, do not leave an amount of manure sufficient to keep the soil in its original state, we often see these tracts of land in a rapid state of deterioration.

A deficiency of manure is one apology for this exhausting mode of cultivation, while another reason, more potent with some, is, that "their fathers and grandfathers did so before them," which is of course conclusive and nothing more can be said to them on the subject.

The object of not manuring on account of a deficiency of manure, is a very good one, provided all due diligence has been used to save every substance about the farm convertible into manure, to increase the compost heap. We do not believe there are many intelligent farmers who will be satisfied with 10 or 15 bushels of rye per acre without manure, when from 35 to 40 may be obtained *with*: they will contrive some way to make and save enough for their rye field, that not only the crop may be increased, but that the land may also be increasing in value; for it should be remembered that the cost of the manure and labor of applying it is in part repaid by the increased fertility of the soil, and not by the present crop alone.

We have known of 45 bushels of fine rye being produced from an acre of land which had been highly manured the year before; we have also known nearly the same quantity produced per acre on land where a heavy second crop of clover had been turned under early in September. No doubt buckwheat would also prove a valuable manure if turned under for the same crop. On light soils, ashes would also prove a valuable stimulant.

Every farmer who "works it right," will contrive to have a supply of compost or some other manure, to dress his rye field, provided it had not received it in a previous crop.

If an old pasture or worn-out field is to be sown down to rye, it should be plowed by the 1st of September, or before: the sword should be turned over flat, and rolled with a field roller; the compost applied, and thoroughly harrowed in without disturbing the sod, and the rye sowed as usual at the rate of 1½ bushels to the acre.

Where there is a plenty of light plain land, it will be good husbandry to sow it down to rye every third year and pasture the intermediate years. If grass seed is sown with the rye on the manured land, after the crop of rye is taken off the next season, the grasses will take the place of weeds and furnish a good fall feed, and by another season will make good pasturage: the roots of the grass, when turned under for the next crop of rye, will greatly enrich the land, and thus instead of deteriorating it will increase in fertility; but where the ground is continually cropped and no manure applied, nor grass seed sown, weeds will take full possession, and in process of time the land will become sterile and barren.

The idea which commonly prevails relative to the injurious effects of the Barberry bush upon rye, causing it to blast, is not correct, so far as our experience and observation goes. We raised, the last season, a field of rye of about 2½ acres, which had barberry bushes on three sides of it, and we have never seen heavier grain, and not often a larger crop; it yielded at the rate of 35 bushels to the acre. A liberal quantity of herds grass was sown with the rye, which gave this year a heavy burden of grass. No manure was used at the time of sowing the rye, but the ground had been under thorough tillage for a number of years.—*N. E. Farmer.*

FALL CATERPILLARS—PALMER WORMS.

Mr. Editor,—I am debtor to the Ploughman for much excellent instruction in the Agricultural and Horticultural Arts, and wish to make some grateful return. During some of our sultry Dog Days, I have thought of the Editor pent up in his office toiling to answer the many and sometimes intricate questions proposed to him. Scarcely has the commander of armies more need of vigilance, and decision, and perseverance than has the cultivator of fruit trees.

You have pursued the borers, giving them no quarters, and yet they are not exterminated.—Already another army is in the field, the Fall Caterpillar, or as sometimes called, the Palmer Worm, a vile enemy that soon destroys the beauty of the tree, and a portion of the fruit. If not checked, I fear he will soon bring a fatal blast not only upon the fruit, but the ornamental trees that shade and adorn our loved homes. The cylindrical brush, invented years ago by Hon. Timothy Pickering, whose name deserves the respectful remembrance of the lovers of fruit and of abundant harvests, is effectual for the destruction of the Spring Caterpillar.

The Fall Caterpillar with but little webbing spreads his thousands over the leaves that often lie about naked. The brush takes no hold of them. The web may be taken off, but the worms are left on the leaves. Washes of various kinds have been recommended to be applied by a sponge fixed on the end of a pole. The syringe has been recommended, but that is costly and not readily obtained by cultivators with small means. Last year I invented and used this method to destroy the Fall Caterpillar, and they have not appeared this year on those trees.

I took what is called a dredger, or flour box, with which housekeepers are acquainted, and fastening it on the end of a fishing-pole filled it with air slacked lime. When the dew was upon the trees, or they were wet with a shower, I took the pole and shook the dredge filled with lime over the nests and leaves around them. This I repeated once or twice. The enemy was partly destroyed. I think as many were destroyed as would have been by any other process. The pole I use is about twenty feet in length, so that I can apply the pepper to the top branches of any of my fruit trees. By this same treatment suds or other liquids may be applied to the nests. This method I much prefer to burning them with torches or with powder, as it does less injury to the trees. A little perseverance in this way will, I think, soon exterminate the enemy, unless he belongs to the philosopher's transmigrating race. In that case it may take a longer time.

Another practice I have adopted I would recommend. When my peach trees have been partly killed by the winter, or spring, or any other cause, I prune off, if possible, all the limbs that are wholly or nearly dead. This practice I am convinced has often saved their lives and restored them to considerable health and usefulness. Why should not a dead limb endanger the life of a tree as certainly as a mortified limb endangers the life of a man? The tree cannot, like the man, go or cry out for help, but it is subject to similar laws of life and death, and deserves to have friends among those refreshed by its shade, fed by its fruit and delighted by its beauty.

Excuse, dear sir, the haste and awkwardness of these hints. The enemy at the door must be met promptly. Before this, the lingering peach trees should have had their dead limbs amputated. Their full growth would have been the more healthy and vigorous. J. R.

Hingham, August, 1844.

From the Maine Cultivator.

APPLES FOR STOCK.

Messrs. Editors:—Strict economy demands that every edible and nutritive article produced on the farm be appropriated to the most profitable use. For several years back, I have been in the habit of feeding apples to different kinds of stock—hogs, cows, horses and sheep, and the result of my experience is a firm conviction that few of our farm products are more valuable, or better adapted to promote the health and thirst of stock generally than apples, whether sour or sweet. It was not, however, without some misgivings that I commenced feeding them to my cows, as I had previously imbibed a very strong prejudice against the practice of feeding these useful animals on anything except hay and grain; but this fallacy has been eradicated by experience, although I was assured by several of my neighbors that cows when kept on such food would invariably shrink their milk. I have no doubt that under certain circumstances this may be true, at least to a limited extent; for on one of my milch cows breaking into a neighbor's orchard, and eating freely of the Immature droppings or "wind-falls," she became ill with a slight fever, and for one or two milkings there was an obvious though slight diminution of milk as the result. The same would have been the fact, in all probability, had the cow broken into my neighbor's cherished and luxuriant plat of aftermath. Repletion, when the food taken is of a succulent and fermentable nature, inevitably

produces fever;—the economy of digestion is consequently impeded and the lactescence organs, like all the other parts of the system, are sympathetically affected and oppressed.

In order that I might have the advantage of deducing my inferences from reliable data in this matter, I fed a couple of young cows exclusively on apples, with the slight exception of a small "foddering" of hay morning and night, for two months; and I can assure you that I have never made more of better butter during a similar period than from these two cows. Reasoning from analogy, the corollary seems unavoidable that ripe, well matured apples, are better than those which are but partially ripe. In both, the quantity of juice is not, perhaps, materially different, but the juice of the ripe apple is more perfectly elaborated, and less likely to induce disease and obstructions in the udder—as sometimes results, as I have been informed, from feeding them in their crude or green state. As to the quantity necessary for a common sized cow, I have found that from a peck to half a bushel—varying the quantity of course with the animal's appetite for them—answers all the purposes of the most liberal feeding with hay and grain.

Truly yours,

POMA.

REMARKS:—The practice of feeding apples to stock is becoming quite common. Twenty years ago, however, no one imagined that animals could live on such food. We thank our intelligent correspondent for the above, and hope he will ere long oblige us again in the same way.—[Eds.]

COMFREY.

PRICKLY COMFREY.—[*Symplyrum officinale.*] If all is true that has of late been published respecting this plant, it promises to become a very important acquisition to our agricultural products; not only as food for cattle, but for man. It was noticed as an agricultural plan in Loudon's Magazine, in 1830, by Dr. Grant, of Lewisham; where it was tried by a number of cultivators. "Cattle of every kind are said to be fond of it; and Mr. Grant thinks an acre might be made to produce thirty tons of green fodder in one year. The plant is of easy propagation by seeds and roots; it is also of great durability, and if once established, would continue to produce crops for many years; and in that point of view, it would seem to be a valuable plant for the cottager who keeps a cow." In the spring of last year, there appeared in the Keene's Sentinel a letter from Rev. E. Rich, of Troy, New Hampshire, recommending the cultivation of comfrey for its foliage as fodder for stock, and for its roots as an article of diet for man. He observes "it will probably yet prove one of the best and cheapest articles of healthful diet now known; not outdone by the potato or Indian corn!" He then details some experiments in the preparation and use of the roots as food, by drying and grinding, then boiling as porridge, &c., and says, he found it very beneficial for colds and other diseases of the lungs and bowels. He advises mixing about one-third of comfrey meal with wheat or Indian, for porridge, puddings, griddle-cakes, &c. Should the taste, at first, be in any degree unpleasant, as is often the case with new things, any agreeable condiments can be added. The letter further states, that the roots are to be dug once in two years, and that they will yield at the rate of more than two thousand bushels per acre! (!) and the two cuttings of the tops in one season, gave at the rate of six tons of hay per acre.

In an article on this subject in the Portsmouth Journal last November, the editor, after alluding to the letter of Mr. Rich, states that Mr. A. Robinson, of that town planted a bed of comfrey, in his garden, last spring, half a rod square, the plants set in rows fifteen inches distant. They scarcely started until July, and the season was very dry; but on cutting the plants in September, the product, when dried, was 22½ pounds. He has no doubt but that next season, when the roots become well set, the bud will yield, at least, two cuttings of twenty-five pounds each; or at the rate of about eight tons per acre.—Mr. Robinson says his stock of all descriptions eat it freely; and he thinks this plant will prove a valuable acquisition to our agricultural culture.

Comfrey is called a native of Siberia, but may be regarded as indigenous to this country. It belongs to the order *Boragine*, which consists of plants not remarkable for useful or nutritious qualities.

The plant can be found in almost every neighborhood, and it will be an easy matter to try experiments with it.—*New Gen. Farm.*

THE AMERICAN FARMER.

PUBLISHED BY SAMUEL SANDS.

THE AMERICAN FARMER.

The Proprietor of the "American Farmer" establishment, expecting shortly to be engaged in the publication of a daily journal in the city of Baltimore, to which he desires to devote as much of his time as possible, would dispose of this establishment on liberal terms, if an immediate application be made. The character of the "Farmer" is too well known to require comment—it is the oldest Agricultural journal published in this country, being now in its 26th year. The central situation of Baltimore renders it a peculiarly advantageous location for a publication of the kind, and in the hands of a person who had a taste for agricultural pursuits, and a necessary talent for conducting the business department thereof, it might be made to be extensively useful and profitable.

The services of the gentleman at present and for several years past engaged in the editorial department, could be secured, if agreeable to the parties concerned.

—The patrons of the "Farmer" are assured, that in case a disposition is not made of it, no interruption will be made in its regular publication. Address, if by letter, post paid,

SAM'L. SANDS, Baltimore, Md.

 Our exchanges will oblige us by noticing the above.

GRANO.—Impressed with the great value of this manure as a lasting fertilizer, we again remind wheat growers that they should not let the present seeding season escape without giving it a fair trial. We believe it the best and cheapest manure that can be used.

BALTIMORE COUNTY

CATTLE SHOW, AGRICULTURAL EXHIBITION & PLOUGHING MATCH.

Our readers will be gratified to find by the advertisement of its Committee of Arrangements, that the Baltimore County Agricultural Society, are preparing for another of those interesting exhibitions, which bring the farmers and planters together upon the great platform of generous rivalry—which, congregating, as it will the residents of distant parts, overcomes space, unfolds all the various plans of operation of distinct neighborhoods, and opens a broad and instructive field of comparison. We hail the contemplated Fair, as a renewed pledge that husbandry, in its enlarged and amplified enterprise, is to receive upon the 23rd and 24th days of the coming month, a new impetus, and that each farmer and planter who may attend it, will return to his home with freshened energies, and a firmer resolution, to go on with improvement until he shall have reached the goal which is alone limited by perfection. Agriculture, like every other art, to be successful in this age, must be progressive; for he who sits down contented with the ways of those who tilled the earth in the age that is passed, must expect to see those around him, who may have drank at the fountain of science, outstripping him in that enlightened race of melioration, which marks the present day as an era in the history of agriculture. Scarcely a month elapses, but some new Lamp is blazoned forth in agricultural Literature, to diffuse its luminous rays over the paths of the husbandman, and render tributary to his purposes the lights of chemical science, in its manifold uses, as applicable to the amendment of the texture of the soil, or to unfold the virtues of the various salts, in their respective combinations and affinities, in adding to its fertility. And we do hold it to be a truth which defies contradiction, that, if Agricultural Fairs were justly appreciated, and a proper direction given to inquiry, they might be made more conducive to the advancement of the great interests of those engaged in the culture of the earth, than almost any other means within the reach of man.

It will be seen that the Committee of Arrangements, appeal to the Farmers, Mechanics and Manufacturers of

the City and County—and above all, to the LADIES for aid: and this appeal we feel confident will not be made in vain; for it is preferred in behalf of an institution, whose claims are as catholic as the wants of man, and challenge to all that is generous and noble in his nature. Without Agriculture prospers, communities must wither and decay; for being the basis on which the superstructure of human society is built and sustained, if it flourish not, all the ramifications, which, in their aggregate mass, form the great whole of which the complicated machinery, called a social world, is formed, must totter to a fall. An Appeal, then, made in behalf of an institution so broad and far reaching in its interests and designs, must find its way to the best affections of the heart, and, like the music of the ancient Chieftain's horn, bring its clansman from moor and dell and mountain.

But if all else should fail in answering to the call for aid, we will pledge our fealty, that the *Ladies* will not be of the delinquent number; for *Woman* never yet was appealed to in behalf of an enterprise worthy of support, but she came forth in fulness and strength, and more than realized every just expectation that could be formed of her puissance and power. Where, in what country, or under what circumstances soever, was the tocsin ever sounded, to summon her to her duty, that she did not outstrip the wing in coming to the rescue? Suffering humanity never appeared but she was found a ministering angel at the couch of sickness—nor did any ever yet supplicate in behalf of the necessitous but woman was foremost in the race of succor. Whether in fighting the battles of the Cross, soothing the brow of the troubled of spirit, or in leading the van in the improvement of morals, woman, even truthful woman, was to be seen at the post where duty called and good was to be done. Judging woman then by her kindly nature, in the abstract—judging her by that comminglement of all the elements of generous and high reaching sentiments, which dignify and give her cast above all else of earth—and judging those of Baltimore County and City by the evidences of their skill, their genius, and their devotion, as exhibited at the Society's Fair last year, we dare tell the Committee of Arrangements, that they have nothing to fear for the result of the approaching one; for such is our confidence in the power of the ladies—and especially of those to whom they have addressed themselves—that we believe them competent to ensure success to any cause which they may bless by their aspirations, or foster by the communion of their labors—for man cannot if he would, and would not if he could, resist the impulsive influence of an example, which commends itself to his emulation through all the best and most cherished feelings of the heart.

From the N. Y. Observer.

AGE OF APPLE TREES—DO NATURAL TREES OUTLIVE THE GRAFTED?

"Apple trees live to a great age. There is a tree on Peak's Island, in Portland harbor, that has been known to bear fruit every season for more than a hundred years."

The above paragraph was in your summary of last week; and as I observe you have a small agricultural department in your paper, I take the liberty of submitting a few remarks suggested by the above extract.

The fact stated is unquestionable. I can well remember, when it was a common thing to see apple trees not only of vast age, but of immense stature. When I was a child, I can distinctly recollect the remains of an orchard, on my father's farm, the principal part of which the British had cut down for fuel. Eight or ten trees only remained, a venerable cluster in one corner of the field. Almost every tree was not far from being two feet in diameter, and in form more like the lofty and wide-spread oak, than our present apple trees. Some of them were from forty to fifty feet high, and of proportional breadth. I can well recollect, also, the gradual decay of these early tenants of the virgin soil, and the remarkable tenacity with which

they clung to life. As one large limb after another decayed and fell, new and vigorous young shoots would spring forth and grow with astonishing rapidity. I recollect one tree in particular, whose limbs all decayed and fell off, one after another, till nothing but a hollow trunk, reduced to a perfect shell, about eight feet high, remained. And yet this apparently lifeless cylinder sent forth strong shoots near its top, which grew and bore fruit for many years. And it is now but a few years, since the last remains of this ancient orchard were eradicated from the soil.

What rendered the longevity of these venerable trees the more striking was, that on this same farm was another orchard of ten acres, that had been set out with great care, only a few years before the revolutionary war, and was then too small to tempt the depredations of the enemy, and these trees long ago put on the appearance of premature old age; and now scarcely a solitary tree remains to remind one that the ground was once an orchard. In fact, it is many years since it lost that name. This orchard, I may add, had been grafted with great care, with choice variety of fruit, and when I first knew it, was flourishing and productive.

I have stated these facts with some particularity, for the sake of suggesting some inquiries, as the following:

Is it common, now-a-days, to meet with very large and aged apple trees, except where they were set out on the virgin soil of the country? And if not, as I suspect will be found to be the fact, to what cause is the decay of our later planted orchards to be ascribed? We know, by sad experience, that many other kinds of trees, which once grew, in all these regions, almost spontaneously, and bore fruit abundantly, as the peach and plum, for instance, now require to be cultivated with the greatest care, and even then are exceedingly shortened. Many a time, when I was a boy, have I, after eating a fine peach, said to my companions, I will now plant this stone, and if my life is spared, in three years I will eat of its fruit; and as often have I realized the fulfilment of the prediction. In those days, our hedges were loaded with peaches, which, from their mere abundance, the very hogs disdained to eat, except to crack the stone and eat the pit! This fact I have witnessed with my own eyes. Why, then, has it become so difficult to raise peaches? Is it to be imputed to any change in the climate? or to the exhaustion of some particular property of the soil? And does not the same cause operate on our apple orchards?

But there is another inquiry which I wish to submit. Are not all these large and aged apple trees the produce of the natural fruit? Can any man point me to an apple tree one hundred, or even seventy-five years of age, that was grafted as our present method is, on the stock, or that was grafted in any way? Every man knows that a grafted tree is merely a continuation of the old one; and, therefore, though its existence be prolonged by insertion into a new stock, it will, notwithstanding, in a few years, put on all the appearances of premature old age; and the sooner, as the process of grafting has been the more frequently performed with the same variety.

We have become so fond of grafting and budding, that most men disdain a natural tree, however vigorous, except for a stock to be tortured and maimed; or, if success attends the transformation, to be consigned to an early death. But is this extreme wise? Where did our delicious, grafted fruit come from at first? And although the seed will not always produce the same variety, yet some of it will, or others still more excellent.

I will venture then, to suggest, in conclusion, that if we would cultivate more natural trees, of all kinds of fruit, and letting them stand till, "by their fruits ye can know them," and then preserve the good and destroy the bad, we shall not only obtain new and improved varieties, but greatly prolong the life of our trees. On the present procedure, one thing is certain as the course of nature—our finest fruits must soon fail. Of this we have striking evidence in the general failure of the Newton Pippin, which was once as universally fair as oranges, and of a large size, but now often small and knotty. Other examples might be given: but I must stop—my sheet is full.

A LONG ISLAND FARMER.

To raise young turkeys, wet their food with sour milk, and let them have free access to a vessel of sour milk for drink. Use corn meal for their food. So says the Prairie Farmer.

[We invite the particular attention of our readers to the excellent suggestions contained in the following article. They are as valuable and as practicable here, as on the other side of the Atlantic, from whence they come.—*N. E. Farm.*]

LIQUID MANURE.

It is now a pretty general belief among farmers, that there is "some good" in liquid manures; but, somehow or other, we never see much preparation either for the collection or application of this, the cheapest and most valuable of all manures, and we verily believe that the subject is as yet scarcely thought of (in a way to lead to any practical result) by one *bona fide* rent-paying farmer out of a thousand. Now, having for several years been an experimenter in this way, and sensible of the very great importance and value of liquid manures, I shall here take the liberty of throwing in my mite to the general fund, by communicating the little I have gained by experience, to my fellow-farmers.

As I discard all chemical formula—the tank, watering cart, and other *et ceteras*—from my system, and attach the fertilizing ingredients to a substance which farmers can actually work in with spades and shovels, I have the more hope that my plan will be followed.

Chemists, generally, do not tell us the reason why liquid manures will not do much good when applied in a fresh state, though this is perfectly plain to all reflecting men. Liquid manure, if applied upon an impervious or gravelly soil, in a fresh state, is not retained long enough for its decomposition to take place, or for the roots to drink it up. It is put on liquid manure, and runs off in the same state; but apply it to a soil rich in decayed or decaying vegetable matter, and on which a vigorous vegetation is going on, and it never fails of its extraordinary effects. The plan of administering liquid manures in a perfectly fresh state, is probably the best of any, were it not for the continued care and consequent expense necessary in supplying our crops with saturated water in all their stages throughout the year, and were we certain of the exact strength of the solution suited to their wants.

As we, therefore, cannot apply our liquid manures on the best principle, on account of the expense, we must try the next best plan, that of decomposing them by the aid of decomposed vegetable matter; and this can happily be done, to great perfection, by reducing the vegetable matter to the state of carbon or charcoal—which we make from peat, as being trifling in expense, easily pulverized, and withal an excellent manure of itself. We divide a shed, into two compartments, one of which we make water-tight, by puddling the side walls with clay, to the height, say, of two feet, and separated from the other compartment by a low water-tight wall or boarding. This is my fermenting tank, which is filled half or three parts full of pulverized burnt peat, and the liquid manure from the stable, pig-styes, &c. directed into it. This is mixed up with the pulverized peat and allowed to remain three or four weeks, till the decomposition seems about completed, being occasionally stirred about after the composition has become about the consistency of gruel. The whole is then ladled (with a pole and bucket) over the low partition into the second floor, which is also three parts filled with carbonized peat; and as this second floor is meant merely as a filter, we have it lower on one side than the other, by which means, in the course of a day or two, the carbonized peat is left comparatively dry. The water having passed off at the lower side, the first or fermenting floor is again filled as before, and the contents of the second floor, if considered saturated enough, are then shoveled up into a corner, and allowed to drip, and further dry till used, which may be either immediately, or at the end of twenty years, as scarcely anything will affect it, if not exposed to the continued washing of pure water, or exposed to the influence of the roots of growing plants. By being thinly spread on a granary floor it soon becomes perfectly dry, and suited to pass through drill machines.

The mixing of the carbonized peat with the liquid manure on the first or fermenting floor, it will be observed, is for laying hold of the gaseous matters as they escape during the fermentation; perhaps other substances may effect this more effectually, but none so cheaply. I think by this plan it will be obvious to every one that a great many desiderata are at once obtained. In the first place, you get free of about 956 parts out of every 1000 of the weight and bulk of manure, by the expulsion of the water; while at the same time you link all the fertilizing

properties contained in it to one of the most handy vehicles—light, cleanly, and portable, and possessed of the peculiar property of holding together the most volatile substances, till gradually called forth by the exigencies of the growing plants. Lastly, you get free of the nasty tank, and the abominable hogshead and watering cart, with all its appendages, and are no more bothered with overflowing tank or over-fermented liquid, with weather unsuited for its application. You have merely to shovel past the saturated charcoal, and shovel in a little fresh stuff, and the process goes on at gain of its own "sweet will;" while the prepared stuff lie ready for all crops, all seasons, and all times.

The solid matter in the urine of the cow is estimated, by very high authority, to be equal in value to its weight of South American guano.

I beg my fellow-farmers clearly to understand, that I make no pretensions to this plan of applying liquid manure being a new discovery. It is merely a modification of your old and tried plan of bottoming your dunghills with peat; but by a herring, the peat is freed of its antiseptic qualities, and thus becomes of itself a much better and speedier manure, and an admirable filter. But even peat, thoroughly dried and perfectly pulverized, I have no doubt might answer the end indifferently well.—*Inverness Cour.*

[A correspondent of the London Gardener's Chronicle makes the following sensible remark :

FARM-YARD MANURE.—Among the various experiments with manures which I am constantly reading about in your Paper, the grand result seems to be to show how much farm yard manure is surpassed by guano, nitrate of soda, bone dust, &c. &c. Now what I wish to ask is, Whether, in all these experiments, poor farm yard dung has a fair trial or no? that is, whether the dung is from a heap such as Mr. Gye would find in his black horsepond yard, out of which all the gravy of the meat, if I may so say, has run away; or from a heap upon which all the juice has been pumped back, and which has had all its ammonia fixed and been made up with all the advantages which a modern muck heap ought to receive? Because, unless it is a dung heap of such a character, I contend that it does not stand a fair comparison with the other manures. Mr. Gye in his admirable papers tells us, that the urine, &c., of cattle contains all the ingredients which render guano and other manures so valuable; therefore, unless the farm-yard manure is composed of all the drainage and sweepings from the stable and yard, properly made up, to try it against the host of fertilisers which have all their strength concentrated and made the most of, cannot properly be a true test of its powers. Experimenters should state what sort of farmyard manure theirs is, as in 90 cases out of 100 I believe it would be found to be good of its sort, but not half so good and strong as it ought to be and is entitled to be.—R. W. [Our correspondent's complaint is a very just one; the farm-yard manure which is used as a standard of comparison in experiments on the value of guano, &c., is rarely what it ought to be; it is generally much the worse for having its insoluble ingredients washed out of it. And there is another fault in these comparative experiments; a farmer applies manure to his land perhaps once in four years; the crops of all these four years ought to be measured and weighed before the value of the manures as fertilisers can be ascertained.]

STEAMING FOOD FOR CATTLE.—The following is a portion of the remarks of Mr. Lathbury, an extensive farmer, at a late meeting of one of the English Farmers' Clubs. We copy from the London Agricultural Gazette:

"With regard to the steaming of food, there were various opinions. The experiments which had been tried seemed to prove that no advantage attended it in the case of grain or roots; and though it was admitted that the steaming of dry fodder enabled cattle to extract a larger portion of nutrient from a given quantity, yet it was doubted whether the cost of the process did not outweigh the advantage gained. He was of opinion that where the cost could be reduced to so insignificant a sum as by his method, the advantage was great.

The effect of steaming was not to alter the nature of the food: it did not convert the poor food into rich: its simple effect was to render more of the nutritious part of the food digestible. By bruising grain every particle was exposed to the action of the juices of the stomach; and cattle could crush the substance of roots and green crops

thoroughly with their teeth; but in dry fodder, some part of the nutrient escaped the action of the stomach, because the fibre could not be thoroughly broken up by mastication. By cutting fodder into short lengths, and steaming, it was rendered tender, and made to resemble green food. By steaming, hay and straw might be made more nutritious, and we might substitute a portion of straw for hay, and still keep cattle doing as well as on dry hay alone.

During the past winter he had 90 head of cattle and horses, and he fed them during the whole time on steamed hay and straw. Up to the 14th of February, he kept all his stock on one-third hay mixed with two-thirds straw. After that, finding his cows got in low condition, he used half straw and half hay, and gave the milking beasts a foddering of hay morning and night. As they calved, he added a pound of linseed to their steamed food. With this diet his cows grew fast and got into milk as well as he ever remembered.

Contrasting his consumption of hay in this and former years, he calculated that he had saved 30 tons. The difference between the price of 30 tons of hay and 30 tons of straw which supplied its place, reckoning hay at 31. 10s., and straw at 17. 5s., would amount to 67. 10s., while the expense of cutting and steaming amounted to less than 5l."

MAKING CHEESE.—On a farm capable of supporting twelve cows, two cheeses of about 10 lbs. each may daily be made, in the months of May, June, and July. The evening's milk is kept untouched till the next morning, when the cream is taken off and put to warm in a brass kettle, heated so as to bring it to the temperature of new milk from the cow. The cows being milked early in the morning, the morning's new milk and the night's milk prepared as above, are put into a large tub together, with the cream. Then a portion of rennet, which has been soaked in water milk-warm the evening before and sufficient to coagulate the milk, is put into the tub, after which it is covered up warm and left to stand about half an hour, or till coagulated at which time it is turned over with a bowl to separate the whey from the curds, and broken soon after in very small particles, with the hand and bowl; the whey being separated by standing some time, is taken from the curd and sinks to the bottom. The curd is then collected into a part of the tub, and a board is placed thereon which weighs from 60 to 120 lbs., to press out the whey. When it is getting into a more solid state, it is cut and turned over in slices several times, to extract all the whey, and then weighed as before. These operations may occupy about an hour and a half. It is then taken from the tub and broken very small by the hand, or cut very fine by a cheese-knife, and put into a cheese-vat, enlarged in depth by a hoop, to hold the quantity, it being more than the bulk when finally put to press. The side is pressed by hand, and a board well weighted placed on top. The cheese is thus drained of its whey, then shifted out of the vat, having a cloth first spread on the top of it, and reversed on the cloth into another vat, or even into the same, which, however, must always be fresh scalded, and thus made warm before the cheese is returned into it. The top part is now broken down to the middle, has salt mixed with it, is reversed as before, then pressed by hand, weighed, and has the remaining whey extracted. This done, the cheese is again reversed into a scalded warm vat, with a cloth beneath the cheese; a hoop is also put round the upper edge of the cheese and within the sides of the vat, the cheese being first enclosed in a cloth, and the edge of it put within the vat. Finally, it is put into a press and pressed very hard. In four hours, it is shifted and turned, and after four hours again treated in the same manner. After this it is taken out and carried to the drying room, and turned every day until it grows hard.

WILDLAND ANDREWS & CO.

We have frequently eaten of the above cheese and found it of a very superior quality. It bears a very high reputation in this market, and commands more than double the price of common cheese. The method of making it seems simple; but we have no doubt the perfect neatness and regularity of all the manipulations tend greatly to its superiority. The sweet pastures of that part of Connecticut, doubtless have their influence on the quality of milk, as it is impossible to make a superior kind of cheese or butter from poor pastures.—Am. Ag.

HERDS GRASS.

Messrs. Editors.—I was forcibly struck in reading a quotation in the Boston Cultivator of July 20th, giving some very interesting information relating to raising and cutting herds grass, by Mr. Isaac Reeves. I have gained a little practical knowledge which perhaps will serve to confirm the correctness of Mr. Reeves's statement, as well as corroborate his theory in regard to the bleeding of the roots of that plant.

In March or April, 1843, I sowed herds grass, red top and clover seed on a field prepared the fall previous, which vegetated to appearance without the failure of a seed; some of the herds grass grew more than a yard in length, and when it had attained its growth, before seeding and while full of "blood," I had it cut and hayed, which was a fine crop for the first year. This present season I have had the same lot mowed, and was disappointed in not finding a spear of the herds grass except at one end of the field, where it had been more highly manured than the rest of the lot: I immediately formed the opinion that I had killed my herds grass by early mowing the previous year; and fully believe with Mr. Reeves, that it will "bleed to death" by too early mowing.

Thirty or forty years ago I resided in a town in the State of Maine, where there were wealthy farmers, and I was not a little surprised at their negligence in cutting their herds grass, which was very abundant from year to year on the same ground, and without being manured. I wished them to state their reasons for delaying cutting their herds grass till late in August, which they readily did, by stating, "that the hay was heartier, and would spend better, and that they must wait till some of the seed should fall from the head to propagate new grass, as the old would run out in time; and that it was necessary there should be seed scattered annually, to sustain a full crop in subsequent years." I must confess that I, at that time, viewed such reasons as fanciful, but more experience induces me to become a believer, after having suffered severely from loss, in cutting my herds grass so early as to exterminate the most of it for many years past from my mowing fields.

S. BROWN.

Wilmington, July 27, 1844.

EDITOR'S REMARKS.

We gave our views a few weeks since on the advantage of cutting herds grass when the seed was full, as the result of experience, though it was said in times past that it should be cut when in blossom. The best farmers in the country, when able to cut their grass at any time they choose seldom commence haying till herds grass is in blossom, unless it is lodged, and of course cutting the greater part as near as possible the time the seed is well grown. Thus we find experience and the best practice in accordance with the views we have advanced, old fashioned whims to the contrary notwithstanding, as they avail but little with men of experience and intelligence.

Messrs. Ayres and Enslin, skilful and observing farmers, in Roxbury, lately remarked in reference to the above subject, that they had a piece of herds grass which they cut late annually, that it was in the same condition and treated the same as other lots that were cut earlier, and the late cut land continued to produce good crops while the other failed, and they supposed that the difference was owing to the different periods of cutting, as they could assign no other cause. We have known a piece of high land, mostly in herds grass, that was always mowed the last on the farm, which was generally after the seed was full, and it continued to produce a good crop for more than 25 years in succession, without ploughing, or dressing of any kind, though fed every fall.—And though cut late, later than the period we have recommended as best, the hay was good, substantial and nutritious, and cattle eat it without any indications of complaint. Is it not reasonable to suppose that the late cutting was a cause of the long continuance of a good crop?—*Bos. Cult.*

INFLUENCE OF THE MOON ON CUTTING BUSHES.

FRIEND BRECK.—Having had my attention called to this subject by remarks on it in your last two papers, I will venture to give you my own philosophy of the matter.

I remember when a boy that such was the prevalent belief in this lunar influence on cutting bushes that farmers would furnish their whole posse of help, old men and boys, with the heel-half of broken grass-scythes and brush-scythes, and wage a war of extermination upon all the bushes on the premises, which could be massacred on

these two veritable days in August; and what remained unharmed for want of help and time, it was frequently thought best to let escape till another year, to enable them to accomplish the work most effectually; and hence they were, too often, still neglected and suffered to encumber the grounds. I often inquire of older and wiser heads, why bushes must be cut on such days and such only? The answer usually was, that cutting bushes at this particular time of the moon, in the month of August, was the most sure of killing them out; and in vain did I ask for the philosophy of it.

In maturer years, I have supposed the philosophy of it this. In the month of August, with us, the fruits and leaves of shrubbery are in their greatest perfection of development and growth; consequently, at this time, have made the greatest demand of sap from the roots; and therefore, if the shrub is cut off near the ground, the roots are left so little nutrient at a season when the earth is usually rather dry, together with the scorching rays of a hot sun, that they of necessity dry up and perish for lack of nutritious matter, which, I suppose ordinarily begins to descend from the branches to the roots about this time.

How far we are to regard the age of the moon, I will not say; only, I conclude that generally, if not universally, the period of greatest maturity with the leaves, &c. of bushes, is about the last quarter of the moon in the month of August.

I, therefore, have as much confidence in one day as another of the moon's age, providing I cut bushes at the time when they have made their greatest draft upon the roots, and before (from their decline) they begin to pay back somewhat of their debt to the roots.

Yours, in haste,
August 16, 1943.

A. G.
[N. E. Farmer.]

LIMING LAND.—In the application of lime to land, it seems to me that one great object is generally overlooked. All the lime intended to be applied in one season is generally spread at once, thus leaving it in a kind of stratum, instead of being, as it ought to be, thoroughly mixed with the soil. Would it not be better to proceed as follows: Suppose you intend to apply sixty bushels to the acre. First spread twenty bushels carefully over the acre of ground; then turn the soil with the heaviest, or rather deepest operating plow you have. Then spread twenty bushels more in the same way, and turn that in with a medium plow passing across the previous furrow. Then spread the remaining twenty bushels, and harrow that in, or turn it under with a light seed plow. This would effectually mingle the lime through the whole depth of the soil. Any one can see the reason of the thing and the advantages of it; the only object of it being the labor; but that is not more than is requisite to bring the soil into the proper condition for seeding. If wheat or any small grain be intended, then the third application can be made at the time the seed is sown. I do not much like the usual plan of applying thirty bushels one year, and three or five years thereafter thirty bushels more, and so on, unless deficiency of means prevents the whole being applied the same year. The idea generally is, that, like manure, the first application is exhausted or nearly so in three or five years, and that then another application is necessary. I do not think the lime is exhausted, but the small quantity applied having been diffused through the whole of the soil by successive plowings, the soil is not sufficiently calcareous. Now if we apply the whole quantity as suggested above, the soil to its entire depth will have become charged with it; and, if enough is applied I do not believe it will be exhausted in twenty years, if then.—*Alb. Cult.*

SHELL-FISH AS MANURE.—Having noticed the good effects of shell-fish in gardens, applied to carrot and onion beds, it occurred to a gentleman of our acquaintance that the same species of manure would be found equally useful on a larger scale, in the case of a green crop cultivated in the open field. Accordingly, he instructed his laborer to repair to the shore, and excavate four cartloads of live shell-fish, composed chiefly of wilks, cockles, and muscles. When carried home, the deposites were thrown into a heap, and allowed to remain until it began to emit an unpleasant odor. Warning thus given, the shells were smashed and mixed with peat earth, to absorb the moisture and facilitate the application. They were then laid in the drills, after the manner of bones, at the rate of 16 bushels per acre; sown with turnips; and, the better to test the utility of the experiment, turnips were planted the

same day over thick layers of barn-yard manure. The seed on the shells took a wonderful start, the plants showing themselves at the end of three days, notwithstanding the intense drought; while the dung operated so slowly, that eight days elapsed before the slightest tendency to greening appeared.

Thus far the shells and substance enclosed have worked perfect wonders, and bid fair to outvie crushed bones, and even guano. The carbonate of lime and animal matter in shell-fish, are great nourishers of vegetable life.—*Dumfries Courier.*

FALL GRAFTING.—Capt Josiah Lovett, who is distinguished for his success in raising superior vegetables and fruits, gives in the Magazine of Horticulture, his mode of fall grafting, by which he is enabled to get fine fruit from the scions the next season.

"Your remarks in the November number of the Magazine, for 1843, page 423, respecting my mode of procuring the specimens of fruit presented on several occasions at the Horticultural Society's rooms, last autumn, is partly incorrect; they were not procured by budding, but by grafting. I have practiced budding with fruit buds for some eight years past, and occasionally succeeded in getting good fruit from them. It is now three years since I have begun grafting with fruit wood in autumn, (and I never heard of any person attempting it previous to that time,) thus far I have been eminently successful with the pear and apple, (occasionally with the plum;) the grafts thus set have been more certain to mature their fruit, than the trees from which the grafts were cut; this can only be accounted for by supposing the sap to flow slower in the graft in the spring, in consequence of there not having been a perfect union with the stock in autumn; and the grafts not blooming or setting their fruit, quite as early in the tree from which they were cut, escape the injurious effects of our late spring frosts and cold north-east storms, to which in our climate are we so subject."

I select a healthy shoot for a scion, with fruit buds on it, I have them set a foot long with one or two side shoots. Immediately remove the leaves, and cut on one side in a sloping direction, to a point, the cut from one to two inches long: then with a sharp knife I begin at the point and cut just within the bark, up about half an inch above the commencement of the incision on the opposite side; then select a thrifty upright shoot, on a healthy tree, cutting well back, making a short stump; cut this stump in the same manner as the scion, reversed; and carefully but firmly bush one with the other; secure with bass or Russian matting, and cover with clay; or I prefer to mix equal parts of beeswax and Burgundy pitch, a less quantity of rosin will answer in the room of pitch; soften to a proper consistency with hogs lard, and melt together, and spread on cotton shirting; and then cut in strips of one half to three quarters of an inch wide, and after uniting graft and stock, bind with this the cotton side next to the bark. The composition ought not to come in contact with the bark, as the bandage should be left on through the winter. If the grafts are carried any distance before uniting to the stock, it will be very important that the leaves be cut off under the tree, and the ends, as soon as possible, dipped in wax or something adhesive.

Very respectfully your obedient serv't.

JOSIAH LOVETT, 2d.

Beverly, March 5, 1844.

N. B.—The mode of grafting above described is very similar to what is called whip-grafting by some, though I take much less wood with the bark than I have seen gentlemen do, who graft by that mode.

DISEASES OF SWINE.—G. L. Cockrill, in the Tennessee Agriculturist, says—"Quinsy attacks fat hogs or all above shoats—the cause I suppose, to be the same that produces it in the human family. My remedy is, to split the neck each side of the wind pipe, some inches long, and an inch or more deep, rub in warm tar or turpentine. Staggers or turning round, bleeding freely from the tail or ear, will generally relieve them. Kidney-worms used to trouble me some, but I have had but little of it for two years; pluck out the hair from the loin, rub it well with warm tar, then feed on dough or slops, strongly impregnated with salt and red pepper; the hog should often be lifted up by the tail and exercised. Hogs' feet become affected some wet seasons, by confining them on green oats; let them have access to some clean hard ground. Water is indispensable for hogs, they can live without for some time, but do not thrive; it is as necessary for the

healthy action of the skin, as it is to drink—shade is also necessary in warm weather."

EARLY SEEDING PEARS.—At the last Agricultural Fair at Canandaigua, a basket of beautiful pears were exhibited, raised from seed, and the tree only four years old. Four years since the grower, John Crofoot, took a fine pear of the variety called Catherine, and planted it entire in a rich spot in his garden. Several young trees came up from it, and grew vigorously.—Taking some leaves from the parent fruit, he selected the shoot most resembling the original, and pulled the others. Stimulating manures were applied to the tree, and it grew vigorously. Last year, being four years old, and about six feet high, it blossomed finely, and produced about two dozen of beautiful pears, more resembling the St. Germaines than the Catherine, and equal if not superior to the latter fruit.—*N. Y. Farmer and Mechanic.*

GUANO—Farmers, Now's your time.

The subscriber has received 80 sacks of GUANO, which he will sell at \$3½ a hundred if immediately applied for.

D. B. DICKINSON,
Corner of Bond and Lombard sts. or,
LEWIS GROSS, Jr.
No. 85 Smith's wharf.

July 24

TURNIP SEED, &c.

Just received from our Seed Gardens 1000 pounds red top and white flat TURNIP SEED, raised from picked roots, of the finest shape and quality, and the same that has given such general satisfaction the last 20 years.

500 lbs RUTA BAGA SEED, raised as above
900 " do " do imported last Spring the best

varieties of English and French Turnips
Price of Domestic Seed \$1 per pound
do Imported do 75cts. do

Also—CABBAGE SEEDS of finest imported; Early Sorts, Flat Dutch, Drum Head and Sugar Loaf Savoy CABBAGE, German Sprouts, yellow and other Radish Seed for late sowing, Half Long, Long Green and Cluster Cucumber Seed, Endive, Lettuce, &c. &c.

Jy 24 ROBT. SINCLAIR Jr. & CO. 62 Light st.

WHEAT FANS, PLOUGHS, &c.

The undersigned would inform the AGRICULTURAL COMMUNITY, that he has on hand and for sale, various kinds of Farming Implements—among which is his very superior Wheat Fan, which, last fall, received the first certificate of excellence awarded by the Balt. Co. Agricultural Society. Also the inimitable Prouty S. S or Boston Centre-draught, and the far-famed Wiley's Patent or New York Ploughs, right and left hand. The many advantages possessed by these ploughs, are invaluable to the agriculturist, and should be tried to be properly appreciated. *Castings for the above always on hand, which being of Northern manufacture, are the most durable extant.* A. G. MOTT,
corner Ensor and Forest sts. Old Town, Balt.

THRASHING MACHINES & HORSE POWERS.

Two of COPE'S Endless chain Horse Powers and Thrashing machines, all complete, which will be sold low if application be made immediately to JAMES HUEY & CO.
No. 7 Bowly's wharf, Baltimore.

HUSSEY'S REAPING MACHINES.

HEMP CUTTERS,
CORN & COB CRUSHERS,
CORN SHELLING and HUSKING MACHINES, &c.
Made to order and kept for sale by the subscriber,
Ap. 17. OBED HUSSEY.

GUANO.

A fresh supply of Guano, just received and for sale by the bag containing from 150 to 220 lbs.

SAMUEL SANDS,
at the office of the American Farmer.

GROUND PLASTER.

The subscriber is now engaged in the grinding of Plaster of Paris, for agricultural purposes, and would respectfully inform Farmers and dealers that he is prepared to furnish it of the best quality at the lowest market price, deliverable in any part of the city, or on board Vessel free of expense, application to be made at the Union Plaster Mill, near the Glass House, or at the office No. 6 Bowly's Wharf, corner Wood street. P. S. CHAPPELL, or, W. L. HOPKINS, Agent.

Pulverization. Decomposition.

A. G. MOTT,

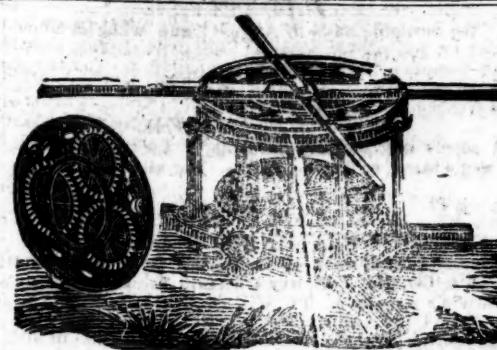
Corner Ensor and Forest streets, Baltimore, sole agent for the sale of "THE BOSTON CENTRE DRAUGHT PLOUGH," Prouty & Mears' self sharpening patent, with new patent gearing.

By this admirable arrangement, the labors of man and team are lessened one-half, while the power and steadiness of draught obtained are so great that any depth of furrow is broken up, pulverized, and carried completely over, with perfect ease and facility, and the precision of the spade.

Prices from 7.50 to 13 dollars, with extra point and share. No extra charge for the new gearing. Castings always on hand.

"Spade labor, the perfection of good husbandry"

Ap 17



MARTINEAU'S IRON HORSE-POWER IMPROVED

Made less liable to get out of order, and cheap to repair, and at less cost than any other machine.

The above cut represents this horse-power, for which the subscriber is proprietor of the patent-right for Maryland, Delaware and the Eastern Shore of Virginia; and he would most respectfully urge upon those wishing to obtain a horse power, to examine this before purchasing elsewhere; for beauty, compactness and durability it has never been surpassed.

Threshing Machines, Wheat Fans, Cultivators, Harrows and the common hand Corn Sheller constantly on hand, and for sale at the lowest prices.

Agricultural Implements of any peculiar model made to order as the shortest notice.

Castings for all kinds of ploughs, constantly on hand by the pound or ton. A liberal discount will be made to country merchants who purchase to sell again.

Mr. Hussey manufactures his reaping machines at this establishment. R. B. CHENOWETH, corner of Front & Ploughman sts. near Baltimore st. Bridge, or No 20 Pratt street. Baltimore, Mar 31, 1841

BALTIMORE CO. AGRICULTURAL SOCIETY.

At the annual meeting of the Society held at Govanstown, on the 20th day of October, 1843, the following resolution was adopted:

"Resolved, That such counties of Maryland as may form societies auxiliary to this, shall on the payment of fifty dollars to the Treasurer of this society, be admitted on equal terms as regards competition for premiums, if in the opinion of the Executive Committee, such an arrangement shall appear to be expedient."

The Executive Committee at a meeting held in Baltimore, Dec. 23d, 1843, having fully concurred in the above resolution, do cordially invite the farmers of the counties of the state to form auxiliary societies, and become competitors for premiums offered by this society.

JOHN H. B. FULTON, Rec. Sec.

FOR SALE, THAT VALUABLE FARM & MILLS,

Known as the Mansion Farm or Owings' Lower Mills, situate 11½ miles from the city, on the Reisterstown turnpike, upon which it bins for half a mile, having the Westminster branch of the Susquehanna rail road within 200 yards of the dwelling. This Farm contains about 416 acres, 80 acres of which are in wood, the greater portion of the residue in a high state of cultivation, having had near 10,000 bushels lime put on it the last few years—the growing crop of wheat, rye, oats, &c. &c. looking remarkably well, the meadow comprising about 100 acres in prime land, which has recently been reset.

The improvements consist of a large and well built brick Mansion House, 60 ft. front by 40 ft. deep, exclusive of the back and side additions. A substantial large brick Barn, having stalled stabling underneath for 23 head of cattle, wagon and carriage houses, dairies, smokehouse, blacksmith's shop, corn houses, &c. &c.

A good brick GRIST MILL, with a comfortable stone Dwelling for the miller; the mill is in good order, and can grind 40 bbls. of flour per day, which quantity could be increased with trifling expense.

An excellent SAW MILL has recently been double geared and capable of cutting 2000 feet per day; these mills have a good run of country custom, with an abundance of water at all seasons of the year, the fall of water being about 30 feet. Additional works might be erected at other sites on the premises.

This farm could conveniently be divided, having on the upper portion of it, in addition to the above improvements, a frame dwelling and log cottage, with a good barn and stabling. The whole property is in superior order and repair. The proprietor residing out of the state, is disposed to sell it for less than its value, on accommodating terms. Any person desirous of viewing the premises can do so by applying to the manager on the premises. For terms of sale and further particulars apply to

REYNOLDS & SMITH,
No. 46 N. Howard st.

je 26

AYRSHIRE BULLS.

Several young Bulls for sale, of this valuable dairy stock; they are from stock selected with great care in Scotland, for a gentleman of this vicinity. One of the bulls is one year old—his appearance is impaired by an injury received in his hip from another bull, but not of a nature to prevent his being fit for service. Price \$50, deliverable in this city. One other Bull, 4 months old, another 1 month old, dams very superior milkers: the dam of the younger gives when fresh between 7 and 8 gallons a day.

Likewise a 15-16 Durham bull Calf, 4 months old, sired by the celebrated bull "Washington Irving," a fine, handsome calf. Either of the calves can be had for \$50. Call on S. Sands, at this office.

je 12

BALTIMORE MARKET, Sept. 24.		Tobacco
Beef, Balt. mess,	8½a	Butter, Glades, No. 1, 13a
Do. do. No. 1,	6½a7	Tobacco market has been
Do. prime,	5a	2, 7a11 quite inactive
Pork, mess	10	2, 6a during the last
Do. No. 1	9½a9	3, 5a6 week, and the
Do. prime	8	1, 6a7 aggregate of
Do. cargo,	a	2, none sales is not
Bacon, hams, Ba. lb.	6½a7	Do. Western, 1, 362 large. The
Do. middlings,	5a5	Do. do. 2, 5a5 stock of best
Do. shoulders,	4a4	Do. do. bls 1, 6a6 qualities is ve-
Do. asst'd, West.	4	Cheese, casks, 6 ry small, while
Do. hams,	5a7	Do. boxes, 5a8 that of com-
Do. middlings,	5a5	Do. extra, 12a15 and infer. is
Do. shoulders,	3a4	comparatively large, & sales
COTTON—		of these latter
Virginia,	9a10	Tennessee, lb.
Upland,	9	Alabama, 11a12 qualities are
Louisiana,	11½	Florida, 10a12 not effected
North Carolina,	10a11	Mississippi without some

LUMBER—
Georgia Flooring 12a15 Joists & Sciling, W.P. 7a10 There have

S. Carolina do 10a12 Joists & Sciling, Y.P. 7a10 been no alter-

White Pine, pann' 125a27 Shingles, W.P. 2a9 in prices,

Common, 20a22 Shingles, cedar', 3.00a9.00 which, it will

Select Cullings, 14a16 Laths, sawed, 1.25a 1.75 be seen, take a

Common do 8a10 Laths, split, 50a 1.00 wide range, to

MOLASSES—
Havana, 1st qu. gl 30a31 New Orleans 31a kinds and conditions, except

Porto Rico, 29a30 Guadalupe & Mart 26a28 perhaps some

English Island, 28a36 few hogsheads

SOAP—
Baltimore white, 12a14 North'n, br'n & yel. 3½a14 of a very super-

TOBACCO—
Common 2 a 3½ Yellow, 8 a 10 kind that are sold, principally, by the

Brown and red, 4 a 5 Fine yellow, 12a14 single hhd. and command a

Ground leaf, 6 a 7 Virginia, 4 a 9 much higher rate than the

Fine red 6½ a 8 Rappahannock, Kentucky, 3 a quotations.

wrapery, suitable for segars, 8a13 St. Domingo, 13 a 11 Cuba, 15 a 38

PLASTER PARIS—
Cargo, pr ton cash 2.75a Ground per bbl. 1.12a

SUGARS—
Hay, wh. 100lbs 9a10.50 St. Croix, 100lbs 7.00a8.00

Do. brown 2.75a Brazil, white, a com. to good

Porto Rico, 6.70a7.50 Do. brown, middle \$2 to

New Orleans, 6a6a Lump, lb. c. \$5; good \$5.50

FLOUR—We quote 2.25 a 4.50; good \$5.60; fine \$6.50

Superfine How. st. from stores, bl. 63.93a. We quote for Ohio com. to midd.

Do. City Mills, 4. Ship Stuf, bus. 2.25 a 4.50;

Do. Susquehanna, 4 a Corn Meal, kiln dried, per bbl. 2.62

Rye, first 2.87a Do. per bhd. 11.75

Corn Meal, kiln dried, per bhd. 2.62

Oats, Md. 21a22 Brown Stuf. 15a

Beans, 101 Shorts, bushel, 10a

FEATHERS—per lb. 29a

COFFEE—
Havana, 7 a 8 Java, lb. 10 a 12

P. Rico & Lagus. 6½ a 8 Rio, 6a7½

St. Domingo, 5½ a 6 Triage, 3½ a 4

CANDLES—
Mould, common, 9a10 Sperm, 32a33

Do. choice brands, 10½ Wax, 60a65

Dipped, 8a 9

prices ranging from \$1.25 to \$2 per 100 lbs. on the hoof, which is equal to \$2.50a\$4 net, according to quality.

NEW AGRICULTURAL ESTABLISHMENT,
At the old stand formerly occupied by JOHN T. DARDING,
fronting on Grant & Ellicott streets, adjoining

Dinsmore & Kyle, Pratt st. wharf.

G. H. BRYSON & J. JOHNSON,

Having entered into a co-partnership under the name G. H. Bryson & Co., offer for sale at reduced prices, a great variety of

Ploughs, Casting, &c., as

Davis, Hill Side, Grain Cradles,

S & M. Sub Soil, Cutting Box,

Chenoweth, Freeborn & Hitchcock, Corn Shellers,

Woods, Cultivators, Corn and Cob

Wiley, Harrows, Crushers, &c.

Bar Sher, Wheat Fans, Ross' Patent Hay and Straw Cutter, and every variety of

FIELD AND GARDEN SEED.

Repairing done on the lowest terms. Castings by the ton or otherwise.

A liberal discount allowed to those who buy to sell again.

Aug 21 G. H. BRYSON & CO.

HARVEST TOOLS.

In store and for sale by J. S. EASTMAN, Pratt street, near Charles, Wolf's very superior Grain Cradles, (such as I have been selling for the last five years;) Grain and Grass Scythes; steel and wood Hay Forks; an assortment of Hay Rakes, Horse Powers and Threshing Machines, of different patterns, for 2 and 4 horses; Wheat Fans, plain and expanding Corn and Tobacco Cultivators, Corn Planters, my superior Straw Cutters, of all sizes, with wood and iron frames. Also a large assortment of PLOUGHES, of all sizes, and other farming implements.

May 2

PERUVIAN GUANO.

The subscriber, agent for the Peruvian Company, has received per ship *Orpheus*, 400 tons of Peruvian Guano—and will hereafter be regularly supplied with the article by the Company, who alone have the right to export it.

Orders for any quantity, (not less than one ton) will be supplied at the following rates,—

From 1 to 5 tons,	\$3 per 100 lbs.
" 6 to 10 "	\$2.87 " "
Above 10 tons,	\$2.75 " "

A Pamphlet upon the nature, properties and results of this Guano, will be issued from the American Farmer Office, in a few days free of charge.

Applications post paid, will meet with prompt attention.

SAML. K. GEORGE,
No. 2 German st., Baltimore.

Sep. 5

CATTLE SHOW,
AGRICULTURAL EXHIBITION & PLOUGHING MATCH.

The Baltimore County Agricultural Society will hold its third annual FAIR on WEDNESDAY AND THURSDAY the 23d and 24th days of October, 1844, at Govanstown, 4 miles from Baltimore on the York Road.

The PLOUGHING MATCH will be held on the first day.

The ANNUAL ADDRESS will be delivered on the second day.

The Executive Committee do not deem it necessary to present at this time a list of the various articles for which premiums will be offered, but assure the public that they are determined to go the very extent of their means in encouraging the various branches of Domestic industry, and in endeavoring to excite an increased emulation in cultivating the soil, in raising the most improved breed of stock, and in the manufactures of husbandry. Encouraged by past experience, the Committee appeal with confidence to the Farmers, Mechanics and Manufacturers, and above all, to the ladies of the City and County to aid them by their presence and contribution, to make the Fair of 1844 an event of surpassing interest to our Agricultural friends and the public generally.

HENRY C. TURNBULL,
WM. GOVANE HOWARD,
JNO. B. H. FULTON,
Committee of Arrangements.

Sep 5

NEALE & LUCKETT, No. 3, Light street wharf.
Have received from a gentleman in Maryland, a supply of FLY PROOF WHEAT for Seed, which they offer for sale at \$14 per bushel. This is a very superior wheat, weighing from 60 to 65 pounds to the bushel, yielding largely upon lands of tolerable quality, safe from the ravages of the fly, and making a rich and very nice flour. It is of German origin, and a different species from the Mediterranean wheat, which it is believed does not yield good flour. Persons wishing to supply themselves with seed, are desired to call and examine the sample now on hand. A few hundred bushels more can be obtained from the same source, if early application be made.

Aug 28

EXTENSIVE SALE OF DURHAM CATTLE.

On THURSDAY, the 26th of September next, at 10 o'clock, at the Exhibition ground of the Philadelphia Agricultural Society, Rising Sun Village on the Germantown Road, 3 miles from Philadelphia, will be sold—A superior lot of improved Short Horns, from the celebrated herd of James Cowen, Esq. of Mount Airy, consisting of young Bulls, Cows, Heifers and Calves, of high blood, imported, or immediately derived from imported animals of great repute.

Also some fine young Heifers, from one half to seven eighths blood, sired by Leander, Son of Dairy Maid.

Mr. Cowen assures us that this sale will in point of numbers and character, far exceed his sale of 1842. Leander and Coistra, the younger, will be among the Bulls; and the celebrated Dairy Maid, the beautiful Cleopatra, Walnut, and Miss Model, among the Cows to be offered.

Catalogues will be ready in due time, and the Cattle will be on the ground for exhibition two days previous to the sale.

We invite the special attention of Breeders and the lovers of fine stock in general, to this splendid selection of Cattle. S. excellent an opportunity for procuring fine specimens of the best Durhams, but sold in pairs.

WOLBERT & HERKNESSE,
Auctioneers.

Aug. 28

AGRICULTURAL MACHINERY,
Manufactured by Robt. Sinclair Jr. &

Co. No. 60 Light street, viz:

Corn Mills,	price \$40	most approved)	8 to 12
Sinclair & Co.'s Corn and Cob Crushers,	8 to 12	Subsoil Ploughs,	8 to 12
Baldwin's do.	30	Other kinds, embrac'g about	25 sorts, and suited to every variety of soil,
Goldsborough's Corn Shelling & Shucking Machine,	65	2.50 to 13	2.50 to 13
Hand do. assort'd,	15 to 17	Harrows,	6 to 16
Vegetable Cutters,	20	Grain Cradles & Scythes,	4 to 5
Threshing Machines,	40 to 60	Plough and Machine Cast-Horse Powers,	75 to 100 ings,
Cylindrical Straw Cutt.	25 to 30	per lb. 4 to 5	25 to 30
Do. extra large,	75	Fanning Mills,	11
Common Straw Cutters,	5 to 12	Horse Hay Rakes,	13
Botts & Green's do.	95 to 30	Grindstones, on friction roll.	13
Pierce's and Dolphin self-sharpening Plows, (new & Ploughs and Machinery REPAIRED on reasonable terms. Also GARDEN AND FARMING TOOLS—of every sort. GARDEN AND FARMING SEEDS " " GARDEN AND FARMING BOOKS " "	30	Lime Spreaders,	30

C—The agricultural community will find it their interest to examine our stock of implements, Seeds, &c. We promise purchases no polite attention and lowest market prices. R. S. Jr. & Co.

POUDRETTÉ

Of the very best quality for value. Three barrels for \$5, or ten barrels for \$15—delivered free of cartage by the New York Poudrette Company, 23 Chambers street, New York. Orders by mail, with the cash, will be promptly attended to, and with the same care as though the purchaser was present, if addressed as above to

D. K. MINOK, Agent.

A supply now on hand from the N. York establishment, by the single barrel, or larger quantity. For sale by

SAML. SANDS, office of the Farmer, Baltimore st.

je 19

FARMERS! EXAMINE FOR YOURSELVES!

The well selected stock of Implements belonging to JAMES HUEY & CO. NO. 7 BRY WLY'S WHARF, Baltimore. Our stock consists of a large lot of PLOUGHS, SHEARS, POINTS, and CULTIVATORS, which we will sell low to suit the times—a among which rank the economical WILEY, and the MINOR & HORTON PLOUGH of the N. York composition metal and manufacture—the share has a double point and edge, equal to two shares and points. We keep on hand all kinds of PLOUGHS, premium CORN SHELLERS, HAY & STRAW CUTTERS, Corn & Cob CRUSHERS, Horse RAKES, Corn and Tobacco HOES. Farmers and Planters on the Eastern and Western Shores may send their orders with confidence, as they will be attended to with promptitude. We also keep GARDEN & FIELD SEEDS. Thankful for past favors, we hope to merit a continuance of the same. Agents for the above implements,

S. L. STEER, Market st. near the corner of Paca, Baltimore

E & W. BISHOP, Bel-air market, Baltimore. fe 28

PORTABLE TUBULAR STEAM GENERATOR.

The undersigned successors to the late firm of Bentley, Randall & Co. are manufacturing, and have constantly on hand a full assortment of the above Boilers, which within the last few months have undergone many improvements: we can now with confidence recommend them for simplicity, strength, durability, economy in fuel, time, labor and room, to surpass any other Steam Generator now in use. They are equally well adapted to the Agriculturist for cooking food for cattle and hogs, the Dyer, Hatter and Tanner for heating liquors, to Manufacturers (both Cotton and Woollen) for heating their mills, boiling sizing, heating cylinders, &c, to Pork Butchers for heating water for scalding hogs and for rendering lard, to Tallow Chandlers for melting tallow by circulation of hot water (in a jacket), to Public Houses and Institutions for cooking, washing and soap making, and for many other purposes for all of which they are now in successful operation; the economy in fuel is almost incredible; we guarantee under all circumstances a saving of two thirds, and in many instances fully three fourths—numerous certificates from the very best of authority can be produced to substantiate the fact. We had the pleasure of receiving the premium for the best Steam Apparatus at the Agricultural Fair held at Govanstown in October 1843.

Manufacturer, Mc Causland's old Brewery, Holliday st.

near Pleasant st., Baltimore, Md.

Dec. 6. tf RANDALL & CO.

THE BOMMER MANURE METHOD.

We wish to afford every facility to the introduction of this method, as the better it is known the higher it will be esteemed. If farmers who are living in a neighborhood will club together, we will offer them the following inducements to purchase, viz. To any club of Five ordering the method to one address, we will make a deduction of 15 per cent. To a Club of Ten, 20 per cent. reduction, and to larger clubs, a still larger discount upon our established rates for single methods, which are as follows:

For a garden up to 20 acres,	5
" 100 acres arable land,	10
" 200 " "	15
" 300 " "	18
" 400 " "	20
Unlimited number of acres,	25

C—Purchasers of a smaller right can at any time increase it by paying the difference in price.

ABBETT & CO. Southern proprietors of the Patent Right, at Parsons & Preston's Book Store, adjoining the Rail Road Depot mb 13 if in Pratt street, Baltimore.

C—Those who find it more convenient, can leave their orders with S. SANDS, at the office of the American Farmer, who will promptly attend thereto.

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MURRAY'S CORN & COB CRUSHERS & GRINDERS.

The subscriber having so simplified the construction of the Machine, and having at the same time added to its efficiency, both for the quantity and quality of its work, is now enabled to sell for \$25 Crushers of the capacity of cylinder heretofore sold at 40 dollars—Hand Crushers for 20 dollars—either with or without self-feeders. Any other machines made to order. Also, Repairs of all kinds of agricultural implements. These machines can be seen in operation opposite the Willow Grove Farm of Mr. J. Donnell.

fe 14 WM. MURRAY.

AGRICULTURAL IMPLEMENTS.

J. S. EASTMAN, at No. 36 West Pratt st. about half a square west of the Baltimore and Ohio rail road depot, has on hand a great variety of Plows and Plow Castings, and other Farming Implements at wholesale and retail, as follows, viz. his newly patented Cleasy self-sharpening plows of 7 different sizes, (and one large left hand do) he has many testimonies to show the superior merits of this implement.

Also—Gideon Davis' improved ploughs, of all sizes, wrought and cast share, do do. Connecticut improved, a superior article for light soil; Evans' reverse point ploughs, with cast share only; Wyman's No. O. self-sharpeners, various bar-share and coulter ploughs and superior side ploughs, etc. etc. Also, corn and tobacco Cultivators, wheat fans, cylindrical straw cutters of various sizes, a superior article; lime carts, superior Pennsylvania made grain Cradles; small Burr-stone Mills for driving by horse power or steam; Corn Shellers, Threshing Machines (and horse-power for two or four horses) made very durable and to thresh clean. Bachelder's and Osgood's patent corn planters, etc. with a great variety of their implements made of the best materials and in the best manner. All the above are sold at reduced prices to suit the times. may 1



WHITMAN'S THRASHING MACHINE & HORSE POWER DEPOT, No. 2 Futaw st., opposite the Entwistle House, where the subscriber now offers for sale all his new improvements in the Thrashing-machine and Horse-power line, consisting in part of his new SEPARATOR, patented March 20th, 1844, which thrashes and cleans the grain at one operation, and is considered the greatest labor saving machine, and of the most value to the farmer of any machine ever invented in this country.

NEW STRAW CARRIERS—These machines thresh and separate the grain from the straw in a rapid and perfect manner, and are highly approved by all.

Improved CYLINDER THRASHERS—Warranted to thresh faster than any other kind of thrashers that can be produced.

Improved HORSE POWERS, on the rail-way principle, for one or two horses. These machines are durable, possess double the power of the common kind, and occupy about one eighth of the room. All of the above are made of the best materials, by experienced workmen, and warranted. I will furnish a man to go out with them and set them up in any part of this State, if desired.

As this is no humbug, all who feel an interest in agriculture are respectfully invited to call and examine for themselves.

All orders addressed to the subscriber, Baltimore city, will meet with prompt attention.

EZRA WHITMAN. Jr.

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